

REMARKS

The office action and the references cited therein have been carefully considered together with the present application and claims have been amended in an effort to place the application in condition for immediate allowance.

The examiner has rejected claims 10, 12-13, 15 and 19 under 35 U.S.C. 112, second paragraph, as being indefinite. More particularly, the examiner states that claim 4 is claiming a limitation of nonclaimed combination of the tool and attachment and that it must be positively recited or the limitations are indefinite. Applicant respectfully traverses this rejection. The existence of the motor output shaft and drive shaft is set forth in the preamble of the claim and provides an environment for the elements of the claim which include the input shaft that is claimed to be in the housing. The claim is directed to the layer and recites that the layer maintains alignment of the motor output shaft, the drive output shaft and the input shaft at the recited rotational speeds. It is not understood what “claiming limitation of nonclaim combination of the tool and attachment” means, nor is it understood what actually are the limitations that are purportedly indefinite. It is believed that this claim is entirely proper.

With regard to claim 10, it has been amended to recite that the resilient material is molded to said substantially cylindrical inside surface of said mounting collar. This conforms to the use of molded in claim 18 which was not rejected as being indefinite. However, regardless of the reference to claim 18, it is believed that claim properly defines structure as opposed to a manufacturing step and is therefore entirely

proper and not indefinite. The examiner also states that claims 14 and 19 are modifying a part that is not part of the claimed invention. These claims modify structure that is in the preamble by defining the nose portion and further defining the structure of the nose portion that is set forth in the preamble. There is no prohibition to further defining structure in a preamble and doing such is not believed to render the claim indefinite. To the extent that the examiner maintains this rejection, applicant requests the examiner provide some reference to a statute, section of the MPEP or other formal support for such the rejection.

The examiner has indicated allowable subject matter by merely objecting to claims 2, 15-16 and 20-22 as being dependent upon a rejected base claim. The subject matter of claim 20 has been incorporated into claim 17, therefore placing claims 17-22 in condition for immediate allowance. Additionally, the subject matter of claim 1 has been incorporated into claim 2, making claim 2 an independent claim and therefore placing this claim in condition for immediate allowance.

With regard to the rejection of claims 1, 3-11, 14 and 17-18 as being unpatentable over Kopras in view of Keith, applicant respectfully traverses the rejection of these claims.

With regard to claim 1, which has been amended to change “said motor output shaft” to “the motor output shaft” as a matter of style or long standing convention wherein the term “the” is used to refer to components of the preamble and “said” to refer to elements of the claim, it is believed that neither Kopras nor Keith, applied singularly

or in combination, teaches or suggests this claim for the reason that neither teaches nor suggests a thin annular cylindrical layer of resilient material located between said housing inside surface and the nose portion.

The examiner admits that Kopras does not disclose the thin annular cylindrical layer between the housing and the nose, but contends that Keith does. However, Keith does not disclose a thin annular cylindrical layer, but in fact discloses an O-ring. Keith's O-ring is not a thin annular cylindrical layer. Keith describes elastic ring 70 in the preferred embodiment as being circular in cross-section. He further states that it should be appreciated that other cross-sectional shapes such as square, oval or triangular rings could be utilized as well (column 4, lines 1-5). He further states that in the preferred embodiment, elastic ring 70 is formed of silicon rubber as opposed to conventional low cost O-ring material in order to reduce the likelihood of damage to the elastic ring resulting from heat generated from friction. In the preferred embodiment, elastic ring 70 has a free outer diameter of 1.125" and a free inside diameter of 0.859" resulting in a cross-sectional diameter of 1.39" (column 4, lines 4-12).

The examiner ignores the claim language which specifically recites a thin annular cylindrical layer of resilient material which is simply not taught or suggested by Keith. The function of the claimed layer is different from that described with regard to Keith's O-ring. At page 9, lines 6-21, applicant describes the retention ring 54 in terms of its structure, size and function:

On at least a portion of an inside diameter of the mounting collar 40 is a retention ring 54, which is preferably a thin annular cylindrical layer of resilient material that is preferably molded onto the inside diameter of the mounting collar. The resilient material of the retention ring 54 is preferably a thermoplastic elastomer (TPE) such as santoprene, and may also include a variety of additional fluoroelastomers as well. The retention ring 54 also has a predetermined thickness, preferably in the range of 0.6mm to 2.0mm.

To ensure that the retention ring 54 is sized and configured according to the preferred embodiment, the retention ring is preferably molded on the inside surface of the mounting collar 40 via injection molding. Molding the retention ring 54 onto the mounting collar 40 has the added benefit of permanently fusing the retention ring to the mounting collar because the TPE chemically bonds to the mounting collar 40. An annular retention rib 56 is provided at an inwardly spaced location relative to the outer wall 48 of the inside diameter of the mounting collar 40 to facilitate the injection molding process. The retention rib 56 defines a bottom edge of the retention ring 54, and is configured within the accessory attachment 10 prior to molding of the retention ring. Thus, the retention rib 56 forms a barrier during the molding process so that the retention ring 54 is confined to the inside diameter of the mounting collar 40.

Because of the properties inherent to the TPE, the retention ring 54 provides a resilient cushion between accessory attachment 10 and the nose portion 30 of the spiral saw 12. The nose portion 30 is sized and configured to snugly fit in the circular opening 22 and the mounting collar 40, but in the absence of the retention ring 54, there is little to absorb the vibration of the spiral saw 12 during use, and there is little to prevent the rotation of the nose portion 30 relative to the mounting collar 40 in response to vibration. However, the provision of the retention ring addresses both problems by absorbing energy from vibration as it is emitted from the spiral saw 12 and by frictionally engaging the nose portion 30 to prevent rotation of the nose portion 30 within the mounting collar 40. Thus, once the accessory attachment 10 is coupled to the spiral saw 12, the retention ring maintains alignment between an axis of the output shaft 32 of the spiral saw and a corresponding axis of the input shaft 26. Additionally, owing to its resilient properties, the retention ring 54 reduces the need for close manufacturing tolerances of the coupling

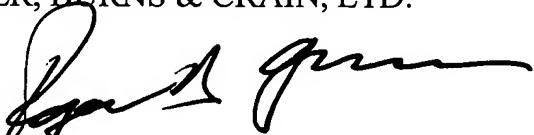
elements by providing axial and angular "play," or additional tolerance, without compromising the rigidity of the coupling.

It is clear that Keith's O-ring does not and cannot operate in the manner described and therefore fails to teach or suggest this element of the claim. Because the dependent claims that depend from amended claim 1 necessarily incorporate the subject matter of that claim, and in addition claim features and/or functionality that are not set forth in that claim, they are therefore also in condition for allowance. Reconsideration and allowance of all claims presenting pending in the application is respectfully requested.

Respectfully submitted,

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